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FINAL ENVIRONMENTAL ASSESSMENT

AND FINDING OF NO SIGNIFICANT IMPACT

KANAREK ESTATE ALTERATIONS TO

STREAMS AT HONOMU AND KOHUA

January 1999

TMK (3rd): 2-8-10:09 & 17
South Hilo District, County of Hawaii, State of Hawaii

prepared for

Land Division
Hawaii State Department of Land and Natural Resources
P.O. Box 936
Hilo, Hawaii 96721

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TMK 2-8-9:10 & 17
South Hilo District, Hawaii County, State of Hawaii

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CLASS OF ACTION:

Use of State Lands

This document is prepared pursuant to the Hawaii Environmental Protection Act,
Chapter 343, Hawaii Revised Statutes (HRS), and
Title 11, Chapter 200, Hawaii Department of Health Administrative Rules (HAR).

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LIST OF APPENDICES

List Of Abbreviations Used In This Document:

COE	U.S. Army Corps of Engineers
CWRM	Commission on Water Resource Management (State of Hawaii)
DARS	Division of Aquatic Resources (of State of Hawaii DLNR)
DLNR	Department of Land and Natural Resources (State of Hawaii)
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
SCAP	Stream Channel Alteration Permit (State of Hawaii)

SUMMARY OF PROJECT, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Project Summary

This EA concerns three separate unauthorized activities involving alterations of stream channels on State land and on an adjacent private parcel near Honomu, Island of Hawaii. The activities were undertaken by the adjacent landowner in order to develop access for his properties. One involved repair of a bridge on a permanent stream, another the construction of a roadway and culvert on an intermittent stream, and the last the repair of a roadway on an existing culvert above an intermittent stream. When State authorities became aware of the activities, they ordered the landowner to cease further work and apply for the appropriate permits. By the time written notification was made in March 1994, the landowner had died. A trust that is executing his estate is attempting to resolve the violations. The alternatives under consideration are to remove some or all of the structures, or to obtain permits for some or all, with mitigation measures designed to reduce and/or compensate for impacts.

Short Term Impacts

Pre-Existing and Potential Construction Impacts. Short-term impacts involving sedimentation of streams and aquatic habitat disruption resulted from the unauthorized activities. These impacts have largely ceased. The Commission on Water Resource Management will determine appropriate mitigation and/or penalties.

Under a removal alternative, the removal of the structures would mitigate any continuing impact. Best management practices concerning sediment containment should be incorporated into the permit conditions governing removal of the structures.

Under the *As-Is* and *Tributary Road Block Access Alternatives*, the following mitigation is suggested:

- Funding for professional aquatic biology survey of the affected streams or other areas, as appropriate and determined by CWRM.
- Fencing of the stream banks at Tributary Culvert to the degree necessary to prevent cattle from accessing the stream.

These mitigation measures are initial proposals only and must be understood as subject to additions or changes by CWRM.

Long Term Impacts

No appreciable long term impacts have resulted from the action.

PART 1: ACTION DESCRIPTION

1.1 Action Location and Land Ownership

This Environmental Assessment (EA) concerns three separate activities that occurred in the vicinity of Honomu, a town located approximately 12 miles northeast of Hilo, Hawaii (Fig. 1). The actions took place on TMK 2-8-10:09, a parcel of land owned by the State of Hawaii, and on an adjacent parcel, TMK 2-8-10:17, then owned by Jules Kanarek. (Fig. 2). The activities were centered on 19° 51.2' N. Lat., 155° 9.3' W. Long.

1.2 *Action Description*

The activities were undertaken by Mr Kanarek (now deceased) in the period between 1988 and 1994 as part of developing access for his properties. Specifically, they involved:

1) Construction of a concrete deck (dimensions: 2.8 ft. thick by 19 ft. long by 16 ft. wide) poured on an existing rock wall abutment bridge (dimensions: 3 ft. thick by 16 ft. wide, height variable up to 20 ft. tall), with two sets of stone wing walls (one upstream and one downstream; dimensions: 18 in. thick by 10 ft. long). Although vehicular traffic has been using the bridge since its construction, the soundness of the structure to carry such traffic has not been determined with certainty because although some of the internal reinforcements are visible from the exterior, there is no way to ascertain the exact construction methods used and thus calculate load capacity. For purposes of clarity, this activity will be referred to in the EA as the *Paheehee Bridge*. The location of the bridge is mapped on Fig. 2; Fig. 3 is a photograph.

2) Emplacement of approximately 350 cubic yards of rock material fill in an intermittent tributary of Paheehee Stream in order to provide a road across this drainage. This occurred in about 1992. The structure was reinforced with two sets of stone wing walls, one upstream and one downstream (dimensions: 18 in. thick by 10 ft. long). An 30-foot long, 8-foot diameter corrugated metal pipe (CMP) culvert was installed to pass the flow. A concrete deck built atop this structure allows vehicles to cross the drainage. This activity is referred to as the *Tributary Culvert*. The location of the culvert is mapped on Fig. 2; Fig. 4 is a photograph. As with the Paheehee Bridge, the soundness of the structure to carry vehicular traffic has not been determined with engineering certainty, although vehicles have crossed the structure without incident.

3) Repair of the road above a concrete culvert, including emplacement of fill on and adjacent to stream banks, at an unmapped, unnamed gully on property belonging to Mr Kanarek, in TMK 2-8-10:19. This activity will be referred to as the *Gully Fill*. The location of the activity is mapped on Fig. 2; Fig. 5A is a photograph of the area immediately after the action; Figs. 5B and 5C show the area in 1997. The road and culvert have been present for at least 30 years, as they appear on the 1965 airphoto used as the base for the U.S. Soil Conservation soil maps of the island (USSCS 1973).

Although this activity occurred on private land and does not involve any of the eight "triggers" of the State EIS law, it is potentially a violation of HAR 13-169-50 and will be included as an element of permit applications to which this EA is an appendix. The activity is therefore described in this EA.

When State authorities became aware of the activities, the Division of Land Management (DLM) of the Hawaii Department of Land and Natural Resources (DLNR) ordered Mr Kanarek to cease further work and apply for the appropriate permits and approvals, without guarantee of granting of such. However, by the time the DLNR made the written notification in March 1994, Mr Kanarek had already died.

In the interval since that time, the executors of the Jules Kanarek Revocable Living Trust (the Trust), inheritor of Mr Kanarek's land holdings, have assumed responsibility for resolving these violations. The Trust is the applicant for this EA, and because the actions involve use of State land, the accepting authority is DLNR-DLM .

This document will also be used to provide information on environmental setting and impacts for a Stream Channel Alteration Permit (SCAP) being sought from the State Commission on Water Resource Management (CWRM) The Trust and its agents have been actively working with CWRM, and the State Department of Land and Natural Resources, Aquatics Division, to assess stream resources, identify impacts, and propose mitigation measures.

After the EA process is concluded, the Trust plans to apply for a parcel consolidation and resubdivision that would redraw the lot boundaries to optimize their layout (Figure 6 provides a preliminary plan). The parcels will then be sold. It is expected that most purchasers will utilize the land for agriculture, most likely ranching, as the other purchasers of the Trust's land in this area have done.

1.3 Alternatives

Although the actions have already been completed and the "No-Action" Alternative is moot, several alternative actions remain:

1.3.1 As-Is Alternative

Under this alternative, no action will be taken to remove any structures or material. The Paheehee Bridge, which provides access through Kanarek property to TMK 2-8-10:8, would remain, allowing access to the new owner of this parcel. The Tributary Culvert and Gully Fill would also remain, continuing to provide access. Mitigation to reduce sedimentation due to the direct or indirect effects of the latter two structures would be provided, as specified by CWRM. Appropriate easements would be obtained from the State of Hawaii for use of land. It is expected that if the Board of Land and Natural Resources decides to allow any structures to remain, they will require the new landowner to indemnify the State of Hawaii.

1.3.2 Tributary Culvert Block Access Alternative

The treatment under this alternative for the Paheehee Bridge and the Gully Fill would remain the same as the As-Is Alternative. However, the Tributary Culvert would be blocked by boulders to prevent vehicles from passing over it. This activity is being considered because the structural integrity of this crossing structure is unknown and difficult to determine. Sedimentation mitigation would occur, as appropriate. Again, easements would be required.

1.3.3 Tributary Culvert Removal Alternative

Under this alternative, again, the treatment for the Paheehee Bridge (for which an easement would be necessary) and the Gully Fill would be as in the As-Is Alternative. This activity is being considered because the structural integrity of this crossing structure is unknown and difficult to determine. The Tributary Culvert - including all earth fill and structures - would be removed and the stream restored to its original condition. Sedimentation mitigation would occur, as appropriate.

1.3.4 Full Removal Alternative

The Paheehee Bridge and Tributary Culvert would be removed. This activity is being considered because the structural integrity of both crossing structures is unknown and difficult to determine. This would deprive the owner of TMK 2-8-10:8 of all legal access to their property. The Gully Fill would not be removed, as the road and culvert are pre-existing and located on private land. Sedimentation mitigation would occur, as appropriate.

1.4 Land Use Designation and Controls

The parcel is zoned Agriculture, 20-acre minimum (A-20a) and is located in the State Land Use Agricultural District. Zoning and Land Use District in surrounding areas are similar. Akaka Falls State Park, which is located 2-4,000 feet north of activity sites, is within the State Land Use Conservation District. The property is not located within the Special Management Area (SMA).

1.5 Consultation With Agencies, Organizations and Individuals

The following agencies, organizations and individuals have been consulted during the Environmental Assessment Process:

County:

Planning Department
County Council
Department of Public Works

State:

Department of Land and Natural Resources
Historic Preservation Division
Commission on Water Resource Management
Division of Aquatic Resources
Department of Hawaiian Home Lands

Federal

U.S. Army Corps of Engineers

Private:

Rural South Hilo Community Association
Honomu Village Association

Notice of the availability of the Draft EA was published by the Hawaii State Office of Environmental Quality Control (OEQC) in the *Environmental Notice* of April 8, 1998. This initiated a 30-day comment period during which the public was invited to respond to the Draft EA with comments or questions. Two comment letters were received. These letters and the responses to them are included as Appendix 1A. The Final EA was revised in portions to incorporate corrections or clarifications supplied by these comment letters.

PART 2: ENVIRONMENTAL SETTING, IMPACTS AND PROPOSED MITIGATION MEASURES

2.1 Basic Geographic Setting

The activities all occurred within subparallel watercourses that drain former sugar cane land just south of Akaka Falls near Honomu, at elevations of 1,400 to 1,500 feet above mean sea level (Fig. 1). The terrain here on the windward flank of Mauna Kea is moderately dissected and exhibits northeast-facing slopes of approximately 10 percent in the areas between streams. Much higher slopes are present on stream banks. Ash soils mantle Pleistocene lava flows, providing a good base for agriculture.

The Akaka Falls area is near the rainfall maximum for the island of Hawaii. Annual rainfall is over 200 inches (Giambelucca et al 1986). Temperatures are mild. Winds are generally northeast trades of 5-15 MPH, with gentler downslope drainage winds at night.

Land use in the area is in a state of transition between the monoculture sugar cane of the plantation era and diversified farming, ranching and large, "agricultural" residential lots. A number of parcels in the area are for sale, and much of the land owned by the State of Hawaii has been transferred to the Department of Hawaiian Home Lands.

2.2 Physical Environment

2.2.1 Drainage

Environmental Setting

The Paheehee Bridge spans Paheehee Stream, which is mapped as a permanent stream by the U.S. Geological Survey (USGS). The Tributary Culvert was emplaced in an unmapped watercourse that, although intermittent, appears to have at least a small flow most of the time and is spring fed. The Gully Fill passes flow from a much smaller unmapped stream that appears also to be spring fed and nearly permanent.

Paheehee Stream is ungaged, and the flow on it and the two unnamed intermittent streams has never been metered. Project engineers Wesley R. Segawa & Associates calculated 100-year storm flows using the Soil Conservation Service method and derived the following data for the streams in which Mr Kanarek placed structures:

	Q100, cfs
Paheehee Stream at Bridge:	2,900
Tributary Stream at Culvert:	608

Because the project site is an area of remote canefields with very sparse population and deeply incised streams, no Flood Insurance Rate maps (FIRM) have been published for the project area. No flooding problems are known from the area.

Impacts and Mitigation Measures

Upon learning about the unauthorized activities, several government agencies expressed concern about the capacity of the Tributary Culvert to pass the 100-year storm discharge. There was also concern about the potential for debris to clog the inlet and cause the structure to be overtopped and/or eroded, causing potential downstream flooding and sedimentation.

The engineering firm of Segawa & Associates has attempted to address these issues by analyzing the capacity of the culvert to handle the 100-year flood. The existing 8-foot culvert is capable of passing the predicted 100-year flow of 608 cfs, although the structural soundness of the crossing structure has not been determined. Little debris appears to be present in this stream channel, where the load consists primarily of fines to medium coarse material. The drainage basin is far smaller than the average for a stream of this discharge because it is spring-fed, which also explains its nearly perennial flow.

2.2.2 Geologic Hazards

The island of Hawaii is subject to geologic hazards, especially lava flows and earthquakes. Areas north of the Wailuku River near Hilo have a rating of Lava Flow Hazard Zone 8 (on a scale of ascending risk 9 to 1). Zone 8 areas have been free of lava flows for the last 750 years and have had only a few percent covered during the last 10,000 years (see Heliker 1990). As such, there is minimal risk of lava inundation over human time scales.

The entire island of Hawaii is in Zone 4 on a scale of ascending risk 1 to 4 in the Seismic Probability Rating according to the current version of the Universal Building Code. Major damage corresponding to a score of 7 or above on the Modified Mercalli Scale is possible.

Impacts and Mitigation Measures

Lava flow hazard is not a consideration in this analysis. In analyzing the safety of the structures, engineers for the Trust have considered seismic factors.

2.2.3 Flora, Fauna and Ecosystems

Environmental Setting - Terrestrial Flora and Fauna

The biological environment of the area was investigated through field visits and a search of the literature. As is typical of most areas at low elevations on the windward coast of Hawaii, alien plants completely dominate the vegetation, although certain native elements are present. In general, hydrophytic vegetation is found in and directly adjacent to the stream, while trees and

shrubs dominate the vegetation of the steep stream banks, and grasses and trees are found in the flatter areas flanking the banks. Native plants found on the stream banks of one or more of the subject sites include `ohi`a (Metrosideros polymorpha), mamaki (Pipturus albidus), neneleau (Rhus sandwicensis), uluhe (Dicranopteris linearis), and hapu`u (Cibotium glaucum). Each is a common species on the island and in the area, particularly in the forest directly upslope. Much more prevalent are individuals of the alien species common guava (Psidium guajava), wai`awi (Psidium cattleianum), white ginger (Hedychium coronarium), California grass (Brachiaria mutica), melastoma (Melastoma candidum), sword fern (Nephrolepis exaltata), Spanish clover (Desmodium cajanifolium), broomsedge (Andropogon virginicus), molasses grass (Melinis minutiflora), thimbleberry (Rubus rosifolius), and sourbush (Pluchea odorata).

No listed, candidate or proposed endangered terrestrial animal or plant species are found in the areas affected by the activities. In terms of conservation value, no botanical or zoological resources requiring special protection are present.

Impacts to Terrestrial Flora and Fauna

None of the activities involved more than negligible adverse impacts to terrestrial flora, fauna or ecology. The proposed activities had very little effect on the vegetation at *Paheehee Bridge* and the *Gully Fill.* At the *Tributary Culvert*, emplacement of fill covered vegetation over stream bed and banks comprising approximately 200 square feet. The vegetation type occupying this area prior to the activity is unknown but probably alien; the vegetation there now is primarily alien.

Environmental Setting - Aquatic Organisms and Ecology

One of the principal concerns of regulatory agencies about the unauthorized activities was the potential to disrupt native aquatic ecosystems, particularly aquatic fauna. The draft *Hawaii Stream Assessment* (Hawaii DLNR 1990) is an inventory of streams that have special value in terms of physical beauty, cultural importance, or biological habitat. According to this source, Paheehee Stream has no known dams, weirs, channelized sections, or diversions, although the sugar plantation is reported to have used it for agricultural water supply in the past. No stream gages are present and no discharge information is available. Although little native forest is present along most of its length, it is related to wetlands in some areas. Paheehee Stream is listed as an "Outstanding" stream in terms of its aquatic biology resources because of the abundance of at least one important native aquatic organism.

The database maintained by the Hawaii State Division of Aquatic Resources (DARS), contains records of biological surveys of Paheehee Stream for 1967, 1972, and 1990. In one or more of these surveys, a number of native aquatic species were recorded: mountain `opae (Atya bisulcata), `opae oeha`a (Macrobrachium grandimanus), o`opu nakea (Awaous guamensis), o`opu hiukole (Lentipes concolor), o`opu akupa (Eleotris sandvicensis), and o`opu nopili (Sicyopteris stimpsoni). Also present were the alien tahitian prawn (Macrobrachium lar),

guppy (Poecilia spp.), and Xiphophorus sp. The *Hawaii Stream Assessment* does not contain information on the distribution of insects found in stream habitats, which may include the category 1 endangered damselflies (Megalagrion pacificum and M. xanthomelas).

No separate detailed field survey of aquatic biology was conducted as part of the research for this EA. Informal reconnaissance did confirm that the affected reach of Paheehee Stream contained at least some of the species listed in the *Hawaii Stream Assessment*, and that all affected streams contain excellent habitat.

Impacts to Aquatic Organisms and Ecology

Construction and use of the *Paheehee Bridge* did and does not involve alteration of stream banks, stream water or sedimentation, and is unlikely to have caused or continue to cause any adverse effects to aquatic biology.

Construction of the *Tributary Culvert* caused substantial short-term sedimentation that does not appear to have been mitigated in any way. A 100 square-foot side pool of somewhat stagnant circulation has developed upstream of the culvert, although flow is unobstructed. Over the five years since construction, the banks have slowly revegetated and for the most part do not appear to be producing substantial sedimentation, even during heavy rainfall or floods. However, cows grazing in adjacent pastures have used the modified banks as a pathway to access the stream for watering. The disturbance to the stream banks and bed produced by their hooves causes extra sedimentation and decreases water quality.

At the *Gully Fill*, where fill emplaced on the roadway had spilled over onto the banks of a stream channeled through an existing culvert, the material that was noticed to be eroding several years ago has now either washed away or stabilized. It seems very unlikely that the activity produced noticeable effects, either temporary or permanent, on any area beyond the immediate stream bank involved.

In the context of the enormous amount of erosion that was associated with sugar cane plantations (and later, abandoned sugar cane land) in this area, the activities were negligible contributors to sedimentation. Nevertheless, it is recognized that all activities were unauthorized and the latter two contributed to degradation of the stream environment.

Proposed Mitigation

A basic assumption of the discussion that follows is that the State Commission on Water Resource Management (CWRM) will determine the program of mitigation as part of the resolving violations and issuing an after-the-fact Stream Channel Alteration Permit (SCAP).

The mitigation measures contained herein are initial proposals only and must be understood as subject to additions or changes by CWRM.

The appropriate mitigation would depend upon the selection of the Alternative by the State of Hawaii. Under the *Full Removal* and *Tributary Road Removal Alternatives*, the removal of the structures would mitigate any continuing impact (although it should be reiterated that the Paheehee Bridge has no known impact and its removal would deprive a property owner of their only legal access). Best management practices (BMPs) concerning sediment containment should be incorporated into the permit conditions governing removal of the structures. BMPs could include:

- Timing season of construction activity to coincide with minimum rainfall
- Ceasing work during any rainfall episodes that raised stream levels;
- Limiting the amount of surface area graded at any given time to reduce the area subject to potential erosion;
- Constructing temporary drainage ditches to divert runoff away from areas susceptible to soil erosion;
- Utilizing soil erosion protective materials such as mulch or geotextiles on areas where soils have a high potential for erosion until permanent provisions such as lawns and grasses can be developed.
- Planting grass as soon as grading operations permit to minimize the amount of time soils are exposed to possible erosion; and
- Building sedimentation basins to collect sediment which enters runoff waters.

Under the *As-Is* and *Tributary Road Block Access Alternatives*, the following mitigation is suggested:

- o Funding for professional aquatic biology survey of the affected streams or other areas, as appropriate and determined by CWRM.
- o Fencing of the stream banks at Tributary Culvert to the degree necessary to prevent cattle from accessing the stream.

2.2.4 Air Quality and Noise

Environmental Setting and Impacts

The project has few implications in terms of air pollution or noise, other than the possibility of minor, temporary impacts if an Alternative requiring construction is selected. Because the area is remote from homes or other sensitive land uses, no mitigative measures beyond standard construction practices are necessary.

2.2.5 Scenic Resources

Environmental Setting and Impacts

Akaka Falls State Park, about 2,000 feet north of the closest site, provides spectacular scenery and is one of the most visited attractions on the Hamakua Coast. The project sites - which are all near streams that border abandoned canefields - are not visible from the park nor from the access roads leading to it. No other views would be affected.

2.3 Socioeconomic and Cultural

2.3.1 Social

Environmental Setting

The actions occurred in a rural area near the town of Honomu. According to the 1990 U.S. Census of Population, Honomu Village had a population of 532. Several dozen homes are scattered in the surrounding area, including two within 1,000 feet of the Tributary Culvert.

Statistics from the 1990 Census of Population reveal that Honomu is a typical sugar plantation community. A fairly large proportion (23 percent) of the population is foreign-born, with most other residents born in Hawaii. Ethnically, the population is fairly evenly split among Caucasians, Japanese, and Filipino, with a lower percentage of native Hawaiians (11 percent) than the island as a whole. The fraction of the population over 65 years is almost twice as great as the island as a whole, but those under age 18 is near normal, symptomatic of an area where there are few jobs for the working age population. Median family income is $25,240, about 75 percent of the Hawaii County median and low even by East Hawaii standards. High school graduates make up less than 55 percent of the adult population. A median home value of $73,200 is about 65 percent of Hawaii County's average, and only 70 percent of Hilo's.

Until the sugar plantations ceased their operations in 1994 they were the dominant factor in the economy. Today, some residents of Honomu commute to Hilo, many or retired or unemployed, and a relatively small proportion work in farms or businesses in the area. Residents supplement their income and food supply through gardens, as well as fishing, hunting and gathering in the ocean, streams, and forest. Paheehee Stream and the forest lands above it are used by gatherers and hunters.

There is a widespread perception among many residents in the area that a public road traversing the Kanarek parcels accesses the Hilo Forest Reserve. This is partially correct. A public road, built to service the original homestead parcels which were later taken over by the plantation, legally exists (Figs. 1&6). However, this is a "paper road" in the sense that it has as not been maintained and now exists only on paper over most of its course. Furthermore, and most importantly, it does not access the forest reserve, coming no closer than 600 feet to the forest reserve or any other public land.

Making matters more complicated, the unpaved road that now accesses the properties in this area uses portions of the public road's right-of-way. The road terminates in a loop that accesses the two parcels that border the forest reserve (one belonging to the Trust, one to another owner). As with the public (paper) road, this loop also stops 600 feet short of the forest reserve, after which private land must be crossed in order to access the forest reserve.

Impacts and Mitigation Measures

The State land affected by the Paheehee Bridge (and, possibly, the Tributary Culvert) contain aquatic resources that may be gathered by local residents. Discussions with several members of the Honomu community determined that no adverse effects to these resources occurred. The activities at the Paheehee Bridge and the Gully Fill did not affect these resources. The Tributary Culvert put an obstacle across the stream, but does not appear to have interfered with residents' using State property or gathering resources.

In a comment letter in response to preconsultation for this EA, Hawaii County Councilman Dominic Yagong expressed the hope that this EA could resolve the access conflict (see Appendix 1). Although none of the sites in question are on or near such roads, or directly or indirectly relate to the conflict over access to the forest reserve, the Trust's representatives have attempted to address the situation. It is important to note that the Trust does not block or otherwise restrict access on any portion that it controls of either the public or private road, although some adjacent landowners are reported to do so. The Trust will attempt to help the community gain legal access by asking the State Department of Land and Natural Resources, which has jurisdiction over the public road, to either commit to maintain the road for the benefit of the public, or exchange the land occupied by the paper road for the land occupied by the actual road. In addition, the Trust will work to find a solution for access between the terminus of the road and the Forest Reserve. Figure 6 illustrates all areas of concern, including a proposed easement to allow legal access to the forest reserve.

These steps will be taken when the Trust applies to the County of Hawaii for a parcel consolidation and resubdivision, after the EA process is concluded. It is important to note that while the concerns over access to the forest reserve are genuine and the Trust is sincerely committed to facilitating access, this issue is not related to the subject of this EA.

2.3.2 Archaeology and Historic Sites

Environmental Setting

The historical context of the project sites was reviewed by the State Historic Preservation Division (SHPD). After initially confusing the Paheehee Bridge with an inventoried bridge that was actually located on the Hawaii Belt Road, the agency determined that none of the activities appear to have affected historic sites (see letters of 19 June 1997 and 4 August 1997 [quoted below], Appendix 1):

"The resurfaced bridge is a small stone and mortar bridge on a cane haul road, that we do not believe to be significant....the bridge resurfacing, the rock fill that was put into a tributary of Paheehee Stream, and the repair of an existing culvert in an unnamed gully, had 'no effect' on significant historic sites."

Impacts and Mitigation Measures

If either of the Removal Alternatives are selected, a limited amount of ground disturbance will occur. Since this will mainly involve recently emplaced fill, it is extremely unlikely that any historic sites would be involved. However, if any artifacts, charcoal deposits, or human remains are discovered during construction, work will immediately cease and SHPD will be consulted to determine the appropriate mitigation.

2.4 Public Facilities and Services

The activities did not involve any public facility and did not and will not affect any public facility or service.

2.5 Secondary and Cumulative Impacts

The activities did not and will not generate separate or larger actions which themselves might produce secondary impacts. The only issue involving potential cumulative impacts concerns other activities in the general area that involve stream channel modifications or land use alterations that could contribute to aquatic habitat degradation. The issue is complex. In general, the cessation of inputs of fertilizers and pesticides and the reduction of sedimentation since the abandonment of sugar cane cultivation in 1995 have improved aquatic habitat. However, the resulting opening of land for small farming and residences has renewed such disturbance for perhaps ten percent of the area, a figure which is slowly rising as new agricultural ventures move onto the land. Because the damage to aquatic habitat essentially ceased after construction, the unauthorized activities are no longer contributing to habitat degradation and are therefore no longer producing adverse impacts which may accumulate with those of other, unrelated activities.

2.6 Required Permits and Approvals

Several permits and approvals would be required to implement this project. They are listed here under their granting agencies:

United States Department of the Army

a. Section 404 Wetlands Permit

State Department of Health:

a. National Pollutant Discharge Elimination System Permit (Removal Alternatives Only)
b. Section 401 Water Quality Certification (Clean Water Act)

State Department of Land and Natural Resources

a. Stream Channel Alteration Permit

County Department of Public Works:

a. Permits for Grading (after-the-fact and/or removal)

2.7 Consistency With Government Plans and Policies

Private bridge and culvert projects are essentially very minor improvements that are not covered by state or county plans, with the exception of plans related to protection of water quality and stream habitat. In particular, two policies are relevant: the State Water Code (Chapter 174C, Hawaii Revised Statutes) and the portions of Hawaii Revised Statutes (Chapter 168) and Hawaii Administrative Rules (Title 13, Chapter 169) dealing with Protection of Instream Uses of Water. The applicable portions of these laws and regulations are reproduced below along with an analysis of the project's relationship to them.

§174C-71, HRS. **Protection of instream uses.** The [Commission on Water Resource Management] shall establish and administer a statewide instream use protection policy....In the performance of its duties the commission shall:....

(3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic and other beneficial instream uses.

§13-169-50, HAR. **Stream Channel Alteration Permit. Permit Required.** Stream channels shall be protected from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic and other beneficial instream uses. No stream channel shall be altered until an application for a permit to undertake the work has been filed and a permit is issued by the commission...

The works performed by Mr Kanarek are in violation of the section of HAR that requires such works to obtain a permit. In reviewing the after-the-fact Stream Channel Alteration Permit for which the Trust is now applying, the Commission on Water Resource Management (CWRM) must consider the impact to beneficial uses specified in the statutes and regulations. The analysis made in this EA concludes that no substantial and/or permanent impacts to beneficial instream uses have occurred, and that granting of an after-the-fact permit is consistent with all applicable laws and regulations.

PART 3: DETERMINATION

The proposed project will not significantly alter the environment and impacts will be minimal. Therefore, it is the understanding of the applicant that the Hawaii State Department of Land and Natural Resources will file a Finding of No Significant Impact (FONSI), meaning that the preparation of an Environmental Impact Statement is not warranted.

PART 4: FINDINGS AND REASONS

Chapter 11-200-12, Hawaii Administrative Rules, outlines those factors agencies must consider when determining whether a project has significant effects. The following discussion lists these criteria and analyzes the relation of the activity to them.

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.*

   Other than a small quantity of aquatic habitat, no natural or cultural resource was affected by the activity. The Commission on Water Resource Management is expected to impose conditions that help mitigate this impact.

2. *The proposed project will not curtail the range of beneficial uses of the environment.*

   No Alternative proposed for resolution of the unauthorized activities would result in a restriction of beneficial uses, such as fishing, gathering or preservation of aquatic habitat.

3. *The proposed project will not conflict with the State's long-term environmental policies.*

   The State's long term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. A number of specific guidelines support these goals. Although the activities covered by this EA did result in degradation of a small quantity of aquatic habitat, the impacts are essentially mitigable through conditions that are expected to be imposed by the Commission on Water Resources, such as sedimentation mitigation and aquatic biology surveys. Otherwise, the project is environmentally benign and is consistent with all elements of the State's long-term environmental policies as expressed in Chapter 344, HRS.

4. *The proposed project will not substantially affect the economic or social welfare of the community or State.*

   No substantial effect, either adverse or beneficial, resulted from the activities or would occur as a result of the any Alternative proposed to resolve the violations.

5. *The proposed project does not substantially affect public health in any detrimental way.*

A small amount of sedimentation in a stream that may be used for gathering occurred as a result of the unauthorized activities. The results of this are no longer apparent. Any construction that could result in additional sedimentation will use best management practices to keep sedimentation to a minimum in order to preserve water quality in the streams.

6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.*

The activities did not and will not generate separate or larger actions which themselves might produce secondary impacts.

7. *The proposed project will not involve a substantial degradation of environmental quality.*

The project would not degrade environmental quality.

8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.*

No rare, threatened or endangered species of flora or fauna are known to exist on the project site, other than the possibility of use by the wide-ranging species Hawaiian hawk or `io (Buteo solitarius), and the `ope`ape`a or Hawaiian hoary bat. (Lasiurus cinereus semotus), which would not be affected by any project activities.

9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.*

The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. In the context of rapidly changing land use practices in the Honomu area, the adverse affects of sedimentation and aquatic habitat degradation that resulted from the activity are negligible in magnitude.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.*

A small amount of sedimentation occurred as a result of unauthorized activities. No substantial effects to air, water, or ambient noise would occur as a result of any Alternative proposed to resolve the violations. Brief, temporary effects to water quality may occur during construction, if any alternative involving construction is selected. Any construction that could result in additional sedimentation will be required by permit to employ best management practices to keep sedimentation to a minimum.

11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.*

The activity occurred in several streambeds. Alternatives proposed to resolve the violations will not adversely affect an area subject to flooding or increase the chance of flooding

12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.*

No identified or protected viewplanes are affected. There are no impacts to scenery. The project sites are not visible from any area within Akaka Falls State Park or the road that leads to it.

13. *The project will not require substantial energy consumption.*

A small amount of energy input might be necessary under any Removal Alternatives.

For the reasons above, the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statues and section 11-200-12 of the State Administrative Rules.

REFERENCES

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APPENDIX 1A

COMMENT LETTERS

TO DRAFT EA AND RESPONSES

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

April 28, 1998

Mr. Michael Wilson, Chair
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Draft Environmental Assessment for the Kanarek Estate Alterations to Streams at Honomu and Kohua, Hawaii

This is in response to the review of the subject document. We have the following questions and comments.

1. The Paheehee Bridge and Tributary Culvert were built by Mr. Kanarek without the proper permits. The structural integrity of the facilities is unknown and difficult to determine. Since the structures are located on state lands, please describe who would be liable for any accidents associated with the potentially deficient facilities.

2. The "Full Removal Alternative" described in the environmental assessment would remove the Paheehee Bridge and Tributary Culvert. This proposal would deprive the owners of legal access to their property. However, the owners propose to consolidate and resubdivide their parcel of land to optimize the layout. What other access alternatives would be available if the lot is consolidated and resubdivided?

3. Please clearly show on a map the following information:
   - boundaries of the owners parcel and state lands
   - streams and stream crossings in the affected area
   - existing access routes
   - the proposed consolidation and resubdivision plan
   - alternative access routes (with and without the proposed consolidation and resubdivision plan)
   - any potential land exchanges between the state and the private owners

4. Please describe whether any of the "after-the-fact" improvements have affected the ability of native aquatic species to migrate up and down the stream. Discuss any mitigation measures proposed to mitigate this impact.

5. Any construction or demolition activity would result in additional sedimentation and cause adverse water quality impacts. Please provide details of the Best Management Practice (BMP) procedures that will be implemented to minimize water quality impacts.

6. Please discuss the findings and reasons for supporting the FONSI determination based on all 13 significant criteria listed in §11-200-12 of the EIS rules. Please see the enclosed example.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Gary Gill
Director

c: CWRM
Steve Lim
Ron Terry

Attachment

CARLSMITH BALL
ATTORNEYS AT LAW
A PARTNERSHIP INCLUDING LAW CORPORATIONS
121 WAIANUENUE AVENUE
POST OFFICE BOX 686
HILO, HAWAII 96721-0686

TELEPHONE (808) 935-6644
FAX (808) 935-7975

WWW.CARLSMITH.COM

OUR REFERENCE NO. 038798-1

February 4, 1999

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Re: Draft Environmental Assessment (EA) for Kanarek Estate Alteration to Streams at Honomu and Kohua

Dear Mr. Gill:

Thank you for reviewing the Draft Environmental Assessment for the Kanarek Estate's Alteration to Streams at Honomu and Kohua, South Hilo, Hawaii. This letter addresses comments contained in your letter to Michael Wilson, DLNR Chair, dated April 28, 1998.

1. **Integrity of Structures and Liability.** We expect that the Board of Land and Natural Resources, if they decide to permit the bridge to remain, will require the landowner (which is no longer, by the way, the Kanarek Estate) to indemnify the State of Hawaii.

2. **Full Removal Alternative and Alternative Access.** Paheehee Bridge provides access through the Kanarek Estate property to TMK: (3) 2-8-10:8, which the Estate no longer owns. Any consolidation-resubdivision would therefore not involve this property.

3. **Map Providing Additional Information.** We have added a fold-out figure for the Final EA that includes the boundaries of the Kanarek parcels with adjacent private owners and State property, the stream crossings, and the existing access routes. The figure also details the preliminary layout for a

proposed consolidation-resubdivision plan. This would involve an agreement between the State of Hawaii and the Kanarek Estate to relocate "paper" sections of the Homestead Road to the location of the actual jeep trail which has been used for years by the public to access the Hilo Forest Reserve, mauka of the Kanarek properties, thereby providing full public access from the end of the Homestead Road to the Hilo Forest Reserve. The figure also shows the 600-foot long public access easement that the Kanarek Estate would provide from the end of the Homestead Road to the Hilo Forest Reserve. This issue arose during one of the community informational meetings on the project, and we have included it as a part of this proposed action at the request of the community to allow consideration of all issues at once. We believe that the consolidation-resubdivision would work to everyone's benefit. We would emphasize, however, that the Homestead Road issue is in no way related to the violations and consequent after-the-fact Stream Channel Alteration Permit and application for easements on State land that formed the original scope of the Environmental Assessment.

4. **Migration of Native Organisms.** It is agreed by all parties, including the State DLNR's Aquatic Resources Division, that the Paheehee Bridge has no effect on native stream organisms of Paheehee Stream, which do include species that migrate up and down stream. The intermittent streams affected by the Gully Fill and the Tributary Culvert do not appear to contain any significant native stream fauna. Furthermore, the alterations would not appear to prevent or make it substantially more difficult for native organisms to migrate if they were present. The Division of Aquatic Resources has not expressed particular concern that any migratory species would be adversely affected.

5. **Best Management Practices.** A description of these mitigation measures has been added to the final EA.

6. **Significance Criteria.** This has been done for the final EA.

We appreciate your comments to the draft environmental assessment. Your letter and this response will be appended to the final environmental assessment to ensure a document that adequately addresses pertinent environmental issues.

Very truly yours,

Steven S.C. Lim

SSL:bny
Enclosure
xc: Linda Kanarek
Ron Terry, Ph.D.

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813-5249
PHONE (808) 594-1888
FAX (808) 594-1865

April 15, 1998

Dr. Ron Terry
HCR 9575
Keaau, HI 96749

Doc. No. EIS-162

Subject: Draft Environmental Assessment (DEA) for Kanarek Estate Alterations to Streams at Honomu and Kohua, South Hilo, Island of Hawaii

Dear Dr. Terry:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for Kanarek Estate Alterations to Streams at Honomu and Kohua, South Hilo, Island of Hawaii. The applicant is seeking after-the-fact permits for three unauthorized stream alterations (Paheehee Bridge, Tributary Culvert, and Gully Fill), at Honomu and Kohua during 1988 through 1994.

The applicant has prepared a DEA to assess the adverse effects of these alterations and has listed a set of alternatives: No action, Tributary Culvert Block Access (no action on Paheehee Bridge and Gully Fill and blocking of Tributary Culvert), Tributary Culvert Removal (removal of earth fill and structures), and Full Removal (removal of all alterations)

The Office of Hawaiian Affairs (OHA) has reviewed the impacts of the unauthorized alterations and the mitigation alternatives. OHA expresses grave concern about such alterations were performed in violation of rules and regulations governing development in Hawaii. Although minor effects on either flora, fauna, and archaeological resources have so far resulted from the alterations, OHA views Full Removal as one alternative which will mitigate any unforeseen impacts. The fact that the alterations do not meet standard guidelines for structural integrity or for "best management practices" truly warrants their removal.

Please contact Colin Kippen (594-1938), LNR Officer, or Luis Manrique (594-1758), should you have any questions on this matter.

Sincerely yours,

Randall Ogata
Administrator

Colin Kippen
Officer,
Land and Natural
Resources Division

cc: Board of Trustees
CAC, Island of Hawaii

CARLSMITH BALL
ATTORNEYS AT LAW
A PARTNERSHIP INCLUDING LAW CORPORATIONS
121 WAIANUENUE AVENUE
POST OFFICE BOX 686
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FAX (808) 935-7975

OUR REFERENCE NO. 038798-1

February 4, 1999

Randall Ogata
Colin Kippen
Office of Hawaiian Affairs
711 Kapiolani Street, Suite 500
Honolulu, Hawaii 96813-5249

Dear Sirs:

Thank you for reviewing the Draft Environmental Assessment for the Kanarek Estate's Alteration to Streams at Honomu and Kohua, South Hilo, Hawaii. This letter addresses comments contained in your letter dated April 15, 1998, to consultant Ron Terry, Ph.D.

The Hawaii State Board of Land and Natural Resources and the Hawaii State Commission on Water Resource Management will determine which alternative to select. Allowing the Paheehee Bridge to remain may be the best alternative. Although the unauthorized actions of Mr. Kanarek cannot be condoned, it is important to note that a substandard bridge was replaced with another, more modern one. We anticipate that should the Board of Land and Natural Resources decide to allow the bridge to remain, it will require the new landowner to indemnify the State of Hawaii against any liability claims by that landowner.

We appreciate your comments to the draft environmental assessment. Your letter and this response will be appended to the final environmental assessment to ensure a document that adequately addresses pertinent environmental issues.

Very truly yours,

Steven S.C. Lim

SSL:bny
xc: Linda Kanarek
Ron Terry, Ph.D.

APPENDIX 1B

COMMENT LETTERS

FROM AGENCIES AND ORGANIZATIONS

IN RESPONSE TO PRE-CONSULTATION

4318L29

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII

KALI WATSON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

June 27, 1997

Ron Terry, Ph.D.
HCR 9575
Keaau, Hawaii 96749

Dear Dr. Terry:

Subject: Environmental Assessment for After-the-Fact Activities in State Land and Stream Channels, TMKs 2-8-10:09 & 19, Honomu and Kohua, South Hilo, Island of Hawaii

The Department of Hawaiian Home Lands (DHHL) has received title to two state land parcels, TMK 2-8-11:09 (301 acres) and 11 (465 acres), which are in the same watershed and at lower elevations as the subject activities.

The DHHL has priority to use water from state lands under Section 221 of the Hawaiian Homes Commission Act and Section 174C-101 of Hawaii Revised Statutes (State Water Code). Please discuss in the environmental assessment any water licenses or other water use permits which the applicant holds from the State, County, or other water authority.

We request that your environmental assessment also provide background information about the lands owned by the applicant, the existing and anticipated uses of those lands, the role of the after-the-fact structures in facilitating the uses, the impacts of the structures upon stream flows and aquatic life, and any existing or potential adverse impacts upon downstream lands and land uses.

Should you have any questions, please call Joe Chu of our Planning Office at 586-3836.

Aloha,

Kali Watson

KALI WATSON, Chairman
Hawaiian Homes Commission

Stephen K. Yamashiro
Mayor

Donna Fay K. Kiyosaki
Chief Engineer

Jiro A. Sumada
Deputy Chief Engineer

County of Hawaii
DEPARTMENT OF PUBLIC WORKS
25 Aupuni Street, Room 202 • Hilo, Hawaii 96720-4252
(808) 961-8321 • Fax (808) 961-8630

July 2, 1997

GEO METRICIAN
HCR 9575
KEAAU HAWAII 96749

SUBJECT : ENVIRONMENTAL ASSESSMENT
After-the-Fact Activities in State Land and Stream Channels
Honomu & Kohua, South Hilo, Hawaii
TMK: 3 / 2-8-10: 09 & 19

We acknowledge receipt of your letter concerning the subject matter, and provide you with our comments as follows:

1. All earthwork and grading shall be in conformance with Chapter 10, Erosion and Sediment Control, of the Hawaii County Code.

2. Any construction within known watercourses shall be in conformance with Chapter 27, Flood Control, of the Hawaii County Code.

3. Since the State is following up on the subject violations, the DPW does not need to get involved in this jurisdiction.

4. We do not need to receive a copy of the environmental assessment when it is completed.

Should there be any questions concerning this matter, please feel free to contact Mr. Casey Yanagihara in our Engineering Division at (808)961-8327.

Galen M. Kuba, Division Chief
Engineering Division

CKY

DOMINIC YAGONG
Councilmember

Phone: (808) 961-8264
FAX: (808) 969-3291

COUNTY COUNCIL
County of Hawaii
Hawaii County Building
25 Aupuni Street
Hilo, Hawaii 96720

July 9, 1997

Ron Terry, Ph.D.
Geo Metrician
HCR 9575
Keaau, Hawaii 96749

Dear Dr. Terry:

In response to your letter dated June 4, 1997 regarding the Environmental Assessment for after-the-fact activities on State lands and stream channels situated on TMK: 2-8-10:9 and 19 at Honomu and Kohua, South Hilo, Hawaii, I am providing the following comments.

It has been brought to my attention that there exists a 56-foot government road right-of-way and a 30-foot easement reserved for public access to the Forest Reserve within parcels identified as TMK: 2-8-10 and which have been used by members of the community. I am also aware, that a few years ago the exact alignment of these roads was not clear. My concern is to ensure that such roadways remain accessible to the public and the Environmental Assessment will provide the opportunity to resolve the alignment and public access issue, if such mitigation measure have not already been addressed.

Thank you for providing me the opportunity to comment on this matter.

Sincerely,

Dominic Yagong, Councilmember
Hawaii County Council

cc: Steve Lim, Attorney, Carlsmith Ball Wichman, Case & Ichiki

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

June 19, 1997

LOG NO: 19641
DOC NO: 9706PM13

Dr. Ron Terry
Geo Metrician
HCR 9575
Keaau, Hawaii 96749

Dear Dr. Terry:

SUBJECT: Environmental Assessment for After-the-Fact Activities in State Land and Stream Channels
Honomu and Kohua, South Hilo, Hawaii Island
TMK: 2-8-10: 09 and 19

Thank you for your letter of June 4, 1997 and the opportunity to review and comment on the EA that your firm is preparing.

In your letter you describe three specific actions that were done without the proper permits or clearances. Our evaluation of these actions is as follows. We do not believe that either the rock fill that was put into a tributary of Paheehee Stream, or the repair of the existing culvert in an unnamed gully would have had any effect on significant historic sites because it is doubtful that sites would have existed in these two locations. The Paheehee Bridge, which was built in 1911, is a significant historic site, but if the resurfacing you describe was limited to the roadway we do not believe that the bridge itself would have been adversely affected.

On current evidence we do not believe that any of the three actions had an adverse effect on significant historic sites, but if you have more information on the bridge resurfacing that indicates the bridge itself was altered somehow then we would need to change our assessment. Please let us know if this appears to have been the case.

If you have any questions please contact Patrick McCoy (587-0006).

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

PM:amk

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

August 4, 1997

Dr. Ron Terry
Geo Metrician
HCR 9575
Keaau, Hawaii 96749

LOG NO: 19900
DOC NO: 9707ms03

Dear Dr. Terry:

SUBJECT: Correction to Previous Review of an Environmental Assessment for After-the-Fact Activities in State Land and Stream Channel
Honomu and Kohua, South Hilo, Hawaii Island
TMK: 2-8-10: 9 and 19

Thank you for the opportunity to visit the above project area. Following this site inspection, we find it necessary to correct our previous review and determination of the environmental assessment (letter dated June 19, 1997; Doc. No. 9706PM13).

As stated in the previous letter, the Paheehee Bridge has been determined to be a significant historic site. This trestle bridge was constructed in 1911, and is located on Mamalahoa Hwy. Following the site inspection it was determined that the resurfaced bridge is not the historically significant Paheehee Bridge. The resurfaced bridge is a small stone and mortar bridge on a cane haul road, that we believe not to be significant. Because of this clarification resulting from the site inspection, we now believe that the bridge resurfacing, the rock fill that was put into a tributary of Paheehee stream, and the repair of an existing culvert in an unnamed gully, had "no effect" on significant historic sites.

If you should have any further questions, please contact Patrick McCoy or Marc Smith at 587-0006 (Honolulu).

Sincerely,

DON HIBBARD, Administrator
State Historic Preservation Division

MS:jk

Stephen K. Yamashiro
Mayor

Virginia Goldstein
Director
Russell Kokubun
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 961-8288 • Fax (808) 961-9615

August 13, 1997

Ron Terry, Ph.D.
Geo Metrician
HCR 9575
Keaau, HI 96749

Dear Mr. Terry:

Preliminary Draft Environmental Assessment for After-the-Fact
Activities and Structures In State Lands and Stream Channels
TMK: 2-8-10: 09 & 19; Honomu and Kohua, South Hilo, Hawaii

Thank you for your letter dated June 4, 1997, requesting preliminary comments regarding your preparation of a draft environmental assessment for certain after-the-fact improvements on state lands and stream channels within the Honomu and Kohua areas. We apologize for the delay in responding to your request. Unless otherwise noted, the information provided below pertain to both of the affected properties.

1. County Zoning: A-20a (Agricultural with minimum 20 ac. lot size required for subdivision and building site purposes).

2. State Land Use: "Agricultural" District.

3. General Plan: Intensive Agricultural (IA) and Extensive Agricultural (EA) according to Land Use Pattern Allocation Guide (LUPAG) map.

4. Parcel 19: 2/10/94). Subdivision Application No. 94-6 (deferred indefinitely:

   According to department records, the above subdivision application was made and indefinitely deferred.

5. Both parcels are not situated within the County's Special Management Area (SMA).

We will defer further comments pending our receipt and review of the draft environmental assessment. In the meantime, should you have any questions please feel free to contact Earl Lucero or Daryn Arai of this office at 961-8288.

Sincerely,

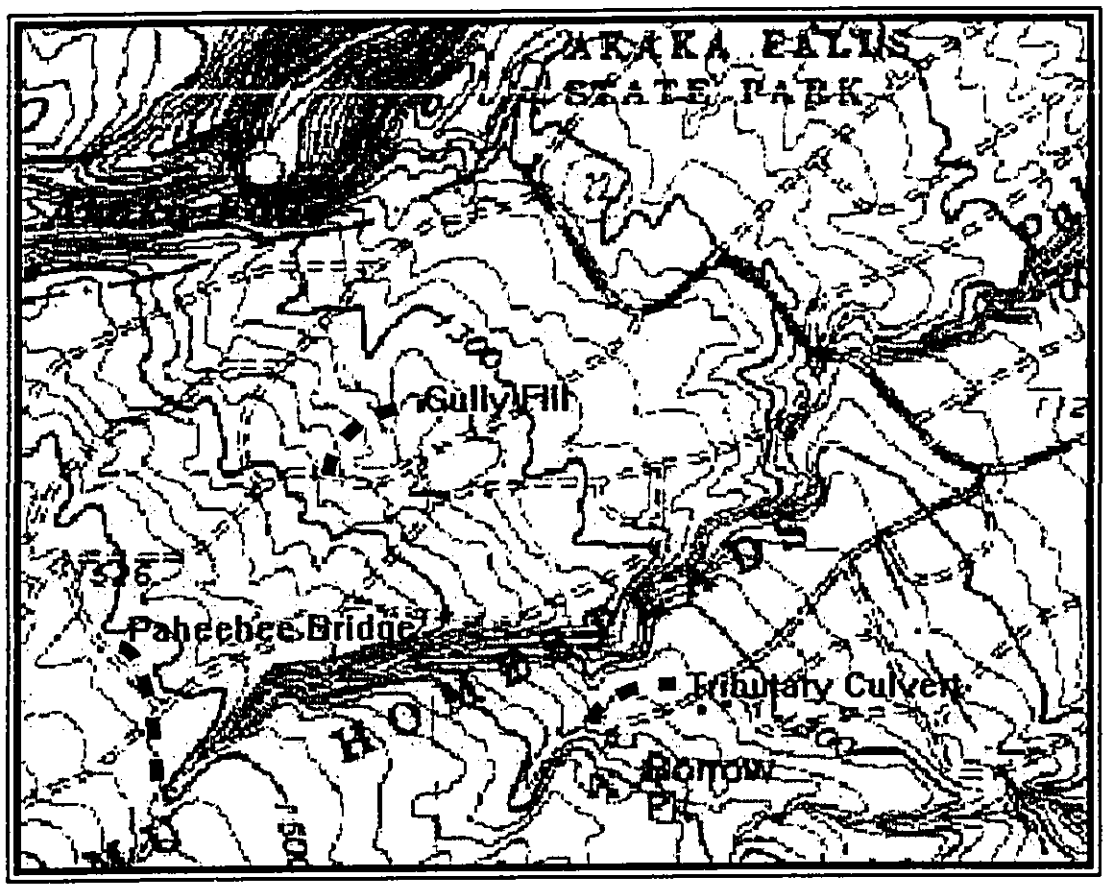
for VIRGINIA GOLDSTEIN
Planning Director

EL/DSA:cjf
f:\wpwin60\christin\rterry07.dsa

APPENDIX 2

FIGURES

FIGURE 1

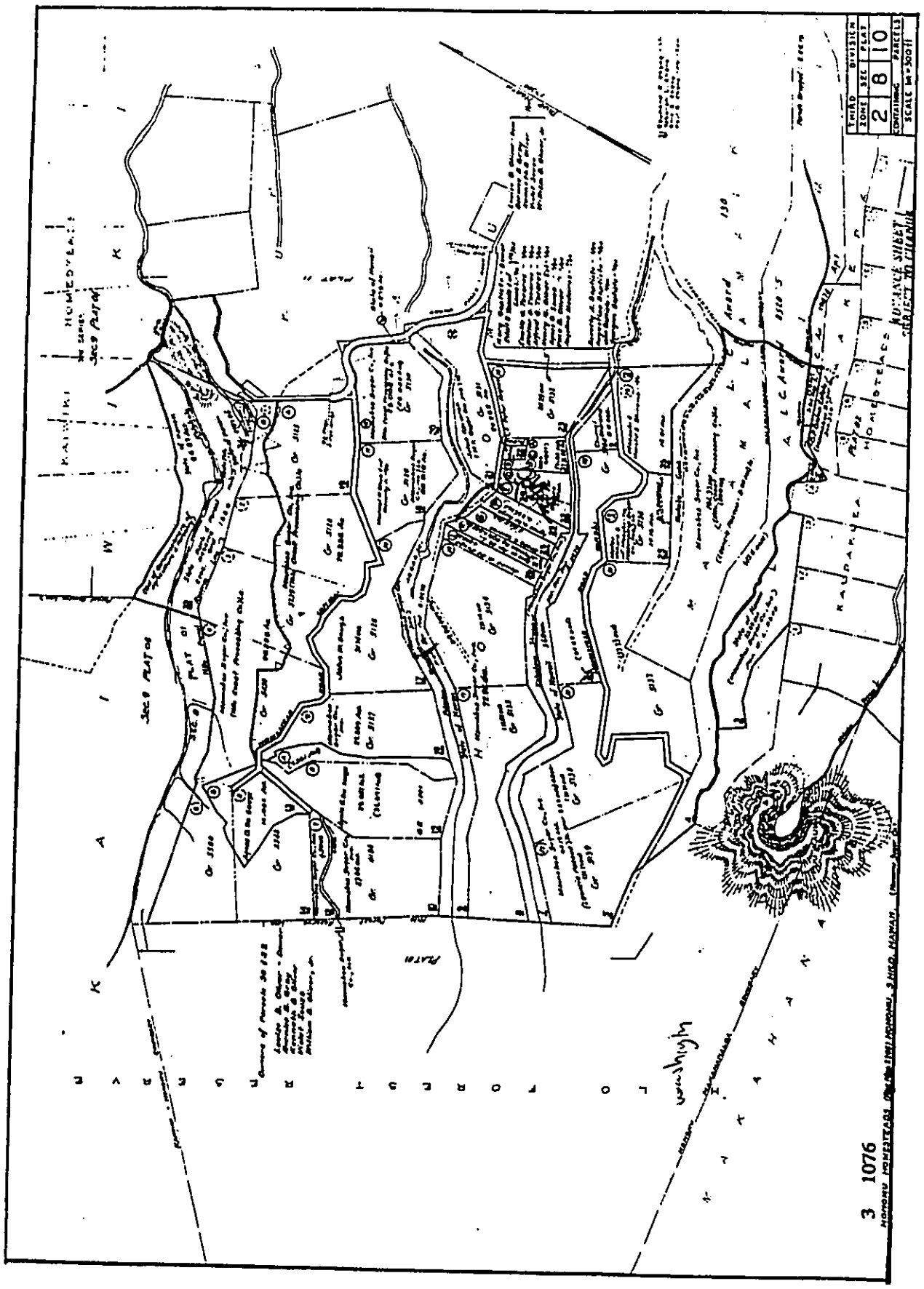


N

Scale: 1;12,000

Source: USGS Akaka Falls Quad (1981)

Figure 2 TMK Map



Source: Hawaii County Tax Maps

Figure 3 →
Paheehee Bridge

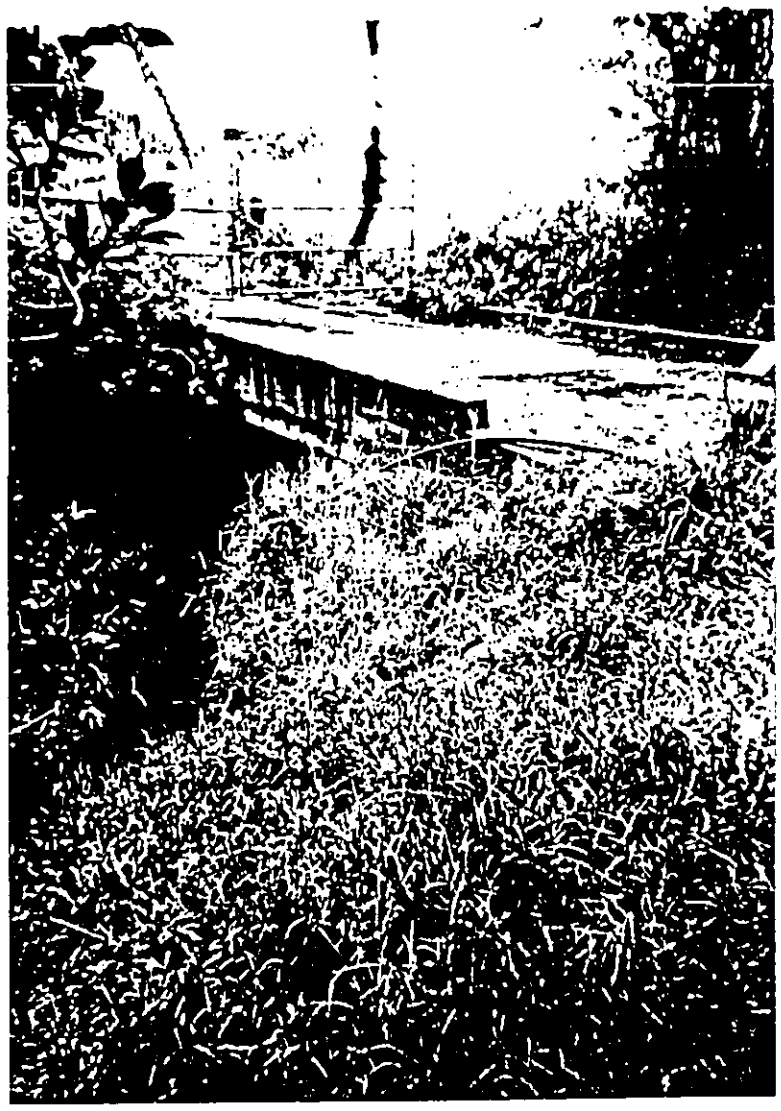


Figure 4
Tributary Culvert
↓

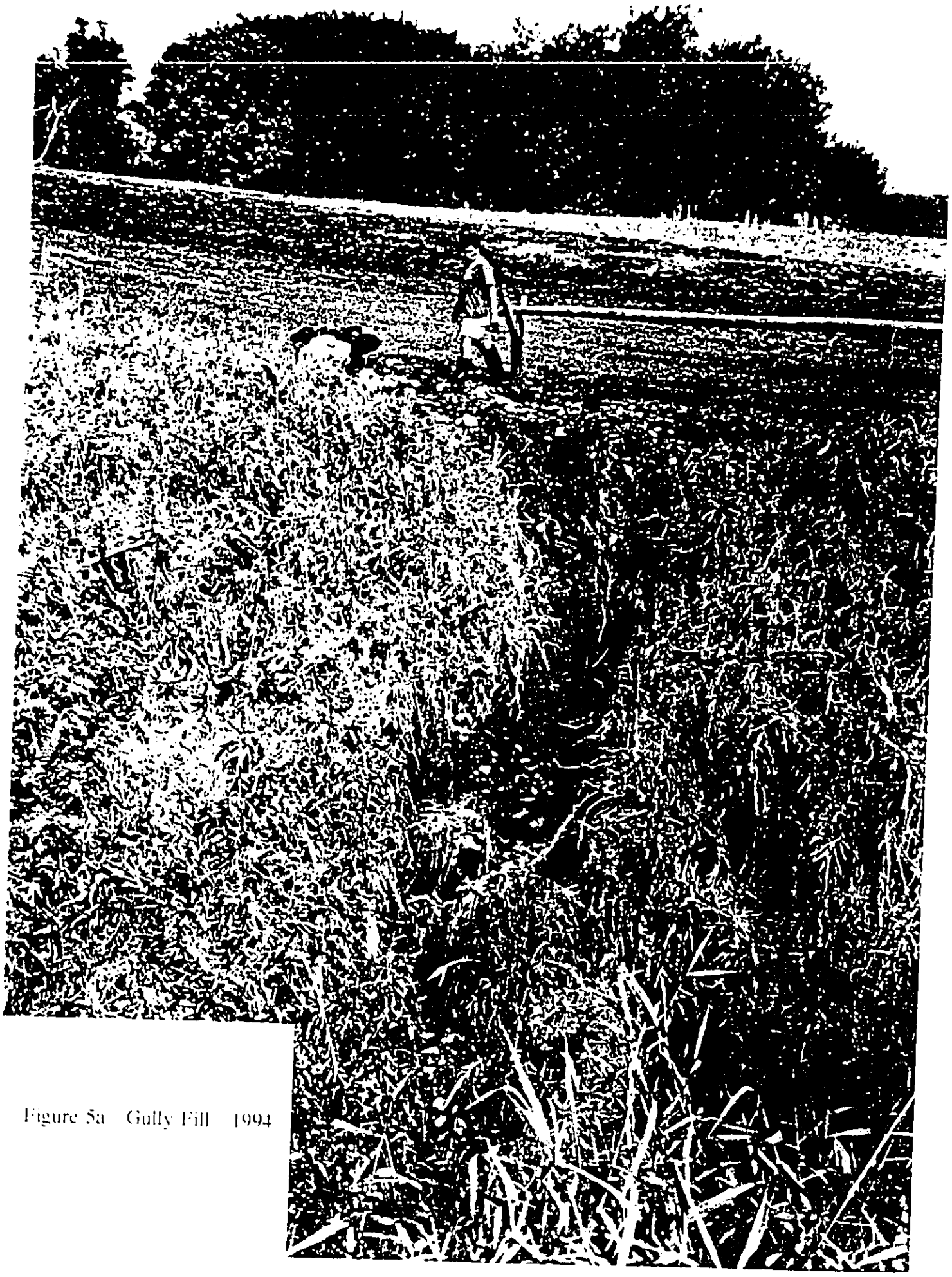
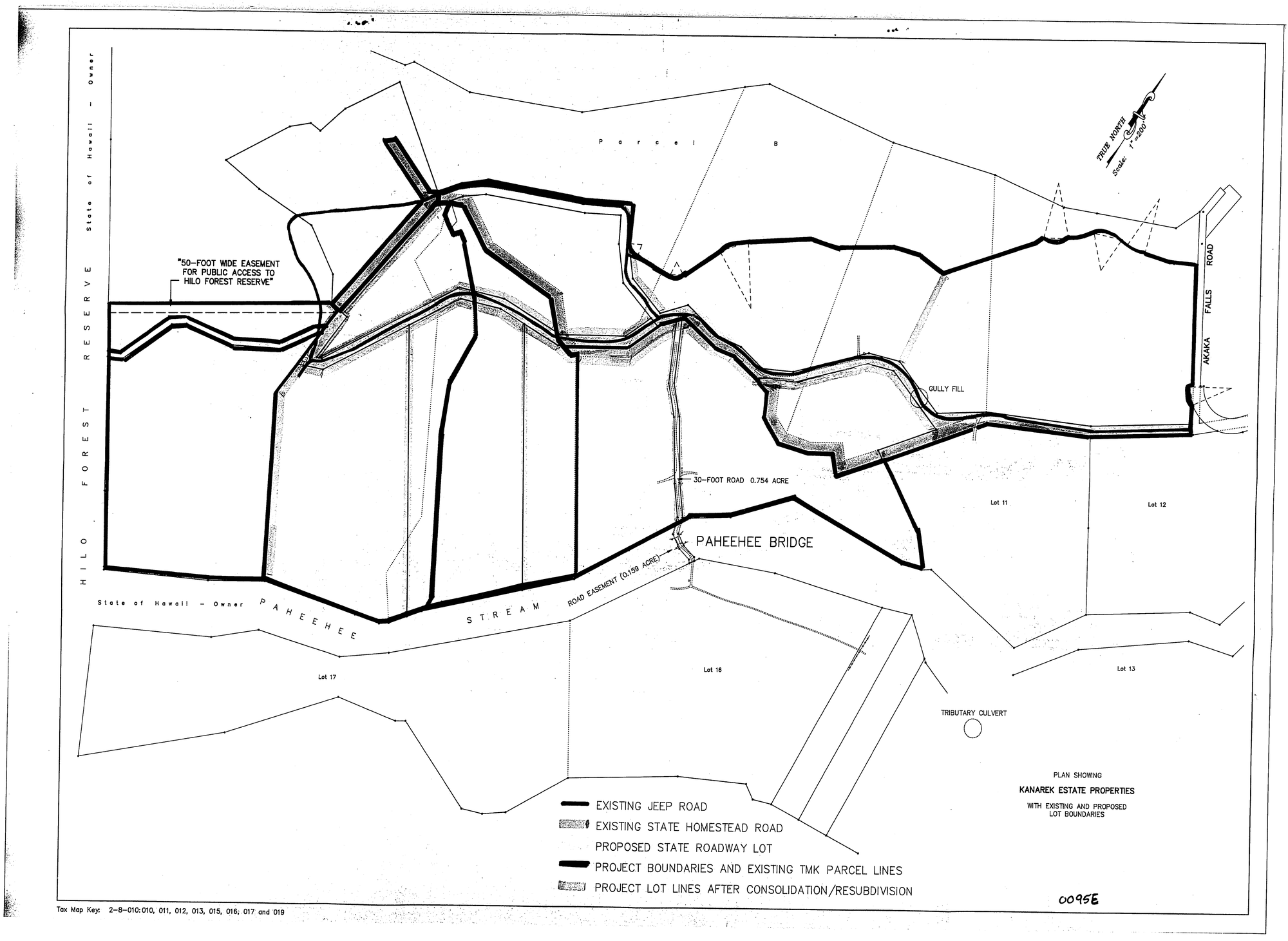


Figure 5a Gully Fill 1994

Figure 5b
Gully Fill Makai of Crossing

Figure 5b
Gully Fill 1997

0095E



Tax Map Key: 2–8–010:010, 011, 012, 013, 015, 016; 017 and 019